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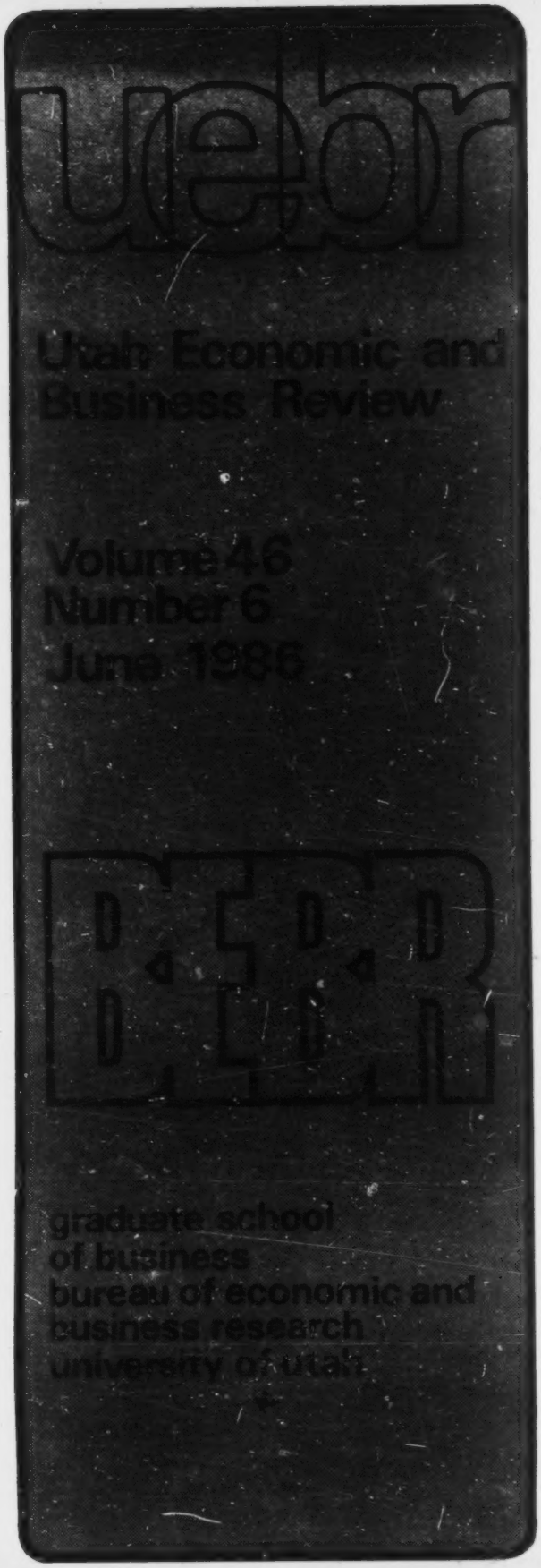


Public School Enrollment Projections:

THE JORDAN SCHOOL DISTRICT PROJECT

By Frank C. Hachman, Associate Director

During the decade of the 1970's the enrollment of the Jordan School District roughly doubled--from about 24,000 to 48,000 students -- for an extraordinarily high average annual growth rate of more than 7 percent per year. This school district, which covers the region of Salt Lake County south of 6600 South that is not in the City of Murray, happened during that decade to be an area of widespread conversion of land from uses with low residential densities into relatively high density residential neighborhoods. There is little new in this process of change -- metropolitan areas in general have shared this experience as a direct consequence of long term increases in family incomes and lowering in cost of personal transportation (i.e., the automobile). However, a specific and very significant consequence occurs during the initial stages in this pattern of change -- an in-migration of families with highly similar characteristics in tastes, incomes, and especially, in age composition.

Population Impacts of Suburbanization on School Districts

Estimates were made from detailed census reports that the population of the Jordan School District was 62,724 in 1970 and 169,348 in 1980. For the larger region of Salt Lake County, the Censuses of Population reported 458,607 residents in 1970 and 619,066 in 1980; hence, between 1970 and 1980, the population of the Jordan School District part of Salt Lake County increased by 106,624. This magnitude of change amounted to approximately two-thirds of the county's total change in population of 160,459, but it produced a two-and-one-halffold increase in the district's population.

Naturally, the conversion of land from low density to high density residential use can result in exceptionally high growth rates as the increase occurs on an initially small base. Still, an unusual aspect of the Jordan District experience between 1970 and 1980 was the length of time during which this high growth occurred over such a broad expanse of area. Although the district as a whole cannot be impacted in the same proportions as it was between 1970 and 1980 (fewer than 25 more years at that phenomenal 10.4 percent per year rate of increase yields populations larger than the present population of the entire

state), the future absolute magnitudes of change can be even larger than before. It should be realized that the consequences for population and school enrollments in local neighborhoods can be increasingly momentous as further land conversion occurs.

In the context of present-day concerns with increases in numbers of students, it is perhaps not widely recognized that the projected state-wide numbers, considered in their relationship to the size of the Utah economy, are not relatively large and are not newly burdensome. Nor is there anything new in the manner in which a continuing process of residential relocation escalates the costs of education beyond the increasing costs of achieving improvements in quality of education.

State-Wide Enrollments Not Relatively Large

Close attention is being properly given to projections of expanding school-aged numbers. For example, an August, 1985 projection by the Office of Planning and Budget of the State of Utah sketches a future to 1995 where the population of ages 5-to-17 increases by nearly 110,000. However, this increase of 26.3 percent on the 1985 base of 413,000 is only about one-half the relative increase of 48.9 percent experienced by the 5-to-17 year old age group between 1950 and 1960. And, this seemingly large expected increase, in the sense of persons of student age either per working age adult or per employed worker, is shown in Table 1 to be considerably smaller as relative burdens than they were in either 1960 or 1970.

Great Importance to the Geographical Concentration of Impact

The element of real burden not disclosed by the aggregated data of Table 1 and that perhaps should be more widely appreciated, is the expansion in education costs resulting from the shifting residential patterns of families with children. Residents of metropolitan Utah can identify this with the reality of overcrowded facilities only a few miles away from where schools are being closed because of decreasing enrollments.

The data provided in Table 2 sketch the fact of the enormous change in the pattern of location that has been an on-going process in Utah since World War II. Although the four "metropolitan" counties (Weber, Davis, Salt Lake and Utah) contained 68 percent of Utah's 1950 population and 77 percent in 1980, the central metropolitan cities of Ogden, Salt Lake, Murray, and Provo fell from 40 percent to 22

Table 1

Population of Utah by Broad Age Groups
Census Years 1950, 1960, and 1970
with an
Estimate for 1985
and Projections for 1990 and 1995

Year	1950	1960	1970	1980	1985	1990	1995
Age Group							
0-4	93,307	126,209	111,798	189,959	198,859	202,415	207,547
5-17	171,865	255,876	312,052	350,143	413,582	485,183	522,523
18-64	381,272	448,585	557,862	811,712	896,962	1,011,150	1,112,970
65+	42,418	59,957	77,561	109,220	141,083	170,665	191,795
Total	688,862	809,627	1,059,273	1,461,037	1,650,486	1,869,413	2,034,835
Employed	250,300	325,500	407,700	596,000	693,000	804,000	907,000
"Supportability" Measures:							
a) persons 5-17 per person 18-64:	0.45	0.57	0.56	0.43	0.46	0.48	0.47
b) persons 5-17 per employed worker:	0.69	0.79	0.77	0.59	0.60	0.60	0.58
c) persons 5-17 as a percentage of total population:	24.9%	28.7%	29.5%	24.0%	25.1%	26.0%	25.7%

Sources: Historical Data, Censuses of Population and Reports of the Utah Department of Employment Security; Projection Data, August 1985 "UPED" Projection of the Office of Planning and Budget, State of Utah.

percent of the state's population in that interval. The detailed data of Table 2 further show that while the total populations of Ogden and Salt Lake City were falling between 1960 and 1980, these decreases were in fact concentrated in the young age groups. Since 1960 the population 18 and over has remained nearly constant in Salt Lake City and actually increased in Ogden.

A specification of the changes in the population 5-to-17 years of age is provided by Table 3. State-wide, this age group more than doubled between 1950 and 1980; but significantly, the numbers outside the four metropolitan counties show only a modest increase. Even this, however, is in striking contrast to the circumstances of the four metropolitan city school districts.

In 1950, the cities of Ogden, Salt Lake City, Murray, and Provo together contained one-third of the state's population of ages 5 through 17. While somewhat offset by relatively small expansions in Murray and Provo, the proportion in the four cities combined fell by more than 50 percent to become less than one-sixth of the school age state population in 1980. At the same time a phenomenal, more than fourfold expansion was taking place in the "Rest of Metro Utah" area comprised of the six school districts of Weber, Davis, Granite, Jordan, Alpine, and Nebo. Chart 1 displays the surprising fact that not only has most of the state's increase in school age population involved just these six districts, but that between 1960 and 1980 the school age population actually decreased in the remainder of the State of Utah outside these six districts.

Table 2

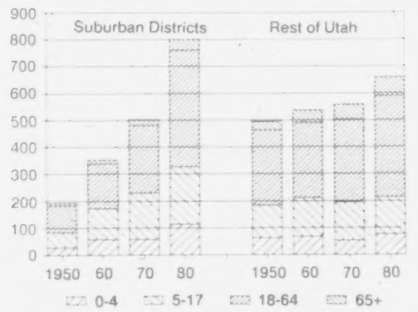
Census Populations by Broad Age Groups
Utah and Selected Utah Areas: 1950, 1960, 1970, and 1980

	State of Utah	Metropolitan Counties: Weber	Davis	Salt Lake	Utah	Metropolitan Area Cities with School Districts: Ogden	Salt Lake	Murray	Provo
1950									
0-4	93,307	11,462	4,955	35,724	11,221	7,172	22,104	1,276	3,491
5-17	171,865	19,919	8,039	61,389	21,715	12,595	36,347	2,344	6,092
18-24	381,272	46,879	16,504	159,197	44,575	33,305	109,363	4,922	17,694
65+	42,418	5,059	1,369	18,585	4,401	4,040	14,307	464	1,660
Total	688,862	83,319	30,867	274,895	81,912	57,112	182,121	9,006	28,937
1960									
0-4	126,209	15,309	11,114	54,077	14,871	8,918	21,288	2,816	4,228
5-17	255,876	32,396	20,657	105,096	30,711	19,152	44,584	4,980	7,323
18-64	448,585	55,390	30,675	196,872	55,230	36,119	103,805	8,300	22,113
65+	59,957	7,649	2,314	26,990	6,179	6,008	19,777	710	2,383
Total	890,627	110,744	64,760	383,035	106,991	70,197	189,454	16,806	36,047
1970									
0-4	111,798	12,550	11,624	48,727	15,067	6,498	15,473	2,153	4,908
5-17	312,052	36,779	35,171	132,118	36,303	17,736	36,563	6,704	8,686
18-64	557,862	67,132	48,784	242,755	78,243	37,943	100,471	11,147	36,706
65+	77,561	9,817	3,449	35,007	8,163	7,301	23,378	1,202	2,831
Total	1,059,273	126,278	99,028	458,607	137,776	69,478	175,885	21,206	53,131
1980									
0-4	189,962	16,274	20,217	76,584	32,340	6,407	14,472	2,693	8,201
5-17	350,143	33,458	40,562	143,592	49,386	12,432	25,008	5,353	10,132
18-64	811,712	81,807	79,255	352,358	123,104	37,194	99,528	15,523	51,372
65+	109,220	13,077	6,506	46,532	13,276	8,374	24,025	2,181	4,403
Total	1,461,037	144,616	146,540	619,066	218,106	64,407	163,033	25,750	74,108

Source: Bureau of the Census, Census of Population, 1960, 1970, 1980 (Washington, D.C., Government Printing Office).

Chart 1

Population by Broad Age Groups
Suburban Districts and Rest of Utah



Salt Lake County is the geographical center of "metropolitan" Utah and the site of the most dramatic change in numbers living outside the "School District" cities. The 1950 Census of Population found 83,768 (or 30.5 percent of the county's population) living in Salt Lake County but not in Salt Lake City or Murray. For 1960, 1970, and 1980 the corresponding numbers are 176,775 (46.2%), 261,516 (57.0%), and 430,283 (69.5%). Mid-1985 estimates of county populations by the Utah Population Estimates Committee[1] indicates a further increase of approximately 71,000 in Salt Lake County population since 1980. the Bureau of Economic and Business Research estimated that approximately 58,000 (or more than 80%) of the last five year's increase of 71,000 occurred in the Granite and Jordan School Districts, for a total Population now residing in those two districts of something close to one-half million persons.

1. Utah Economic and Business Review, Bureau of Economic and Business Research, University of Utah, Vol. 46, No. 1, January 1986.

Table 3

Population of Age Group 5-17 and Selected Percentages for Broad Areas: 1950, 1960, 1970, 1980

	State of Utah	Non-Metro Utah[a]	Metro Utah[a]	Metro City School Districts[a]	Rest of Metro Utah[a]
1950	171,865	60,803	111,062	57,378	53,684
1960	255,876	67,016	188,860	76,039	112,821
1970	312,052	71,681	240,371	69,689	170,682
1980	350,143	83,145	266,998	52,925	214,073
		Percent of State			
1950		35.4%	64.6%	33.4%	31.2%
1960		26.2%	73.8%	29.7%	44.1%
1970		23.0%	77.0%	22.3%	54.7%
1980		23.8%	76.2%	15.1%	61.1%
		Percentage Change over Interval			
1950-60	48.9%	10.2%	70.1%	32.5%	110.2%
1960-70	22.0%	7.0%	27.3%	-8.4%	51.3%
1970-80	12.2%	16.0%	11.1%	-24.1%	25.4%

[a]Non-Metro Utah: All Utah Counties other than Weber, Davis, Salt Lake, and Utah Counties
Metro Utah: Weber, Davis, Salt Lake, and Utah Counties
Metro City School Districts: the Cities of Ogden, Salt Lake City, Murray, and Provo
Rest of Metro Utah: Metro Utah not in the Metro City School Districts.

Source: Calculated by the Bureau of Economic and Business Research from the data presented in Table 2.

Importance of Age Composition in Small Areas Undergoing Change

In terms of rates of expansion in the Jordan School District, the years since 1980 have produced a far lower growth rate in enrollment--3.77 percent per year--but the yearly changes in absolute numbers of students are not all that different from the 1970 to 1980 experience. Between 1970 and 1980 the Jordan enrollment expanded by about 2,400 students per year, while the absolute change between September, 1980 and September, 1985 averaged 1,952 per year. The September enrollments for these latter years as reported by the Jordan District's Student Services office were:

Year	September Enrollment	Annual Percentage Change
1980	48,009	
		4.0%
1981	49,935	
		4.1%
1982	51,967	
		3.0%
1983	53,544	
		4.2%
1984	55,819	
		3.5%
1985	57,768	

Year-to-year growth rates this high in a population with an age composition matching that of the State of Utah would signal high rates of net in-migration. But, an examination of the changes in cohorts (that is, populations grouped by intervals of birth rather than by some other classification such as grade of enrollment) strongly suggests that negligible net migration took place over the 1980 to 1985 interval and that the 1982 to 1983 period was actually one of some net out-migration from the Jordan District.

The fact is that the Jordan School District population of 1980 had a very unusual age distribution. The recent growth in enrollment was nothing more than just the direct result of the aging with time of an extraordinary concentration of persons previously in the pre-school ages.

The proportion of the Jordan District population by each year of age as of 1980 is graphed in Chart 2 with the proportionate distribution by age of the entire population of the rest of Utah shown for comparison. As striking as the differences are for the populations under the age of 20, the secondary peaking of the Jordan population in the ages of the late 20's and early 30's is a confirmation of the supposition that the intense in-migration of the previous ten years was dominated by young families finding suburban housing.[2]

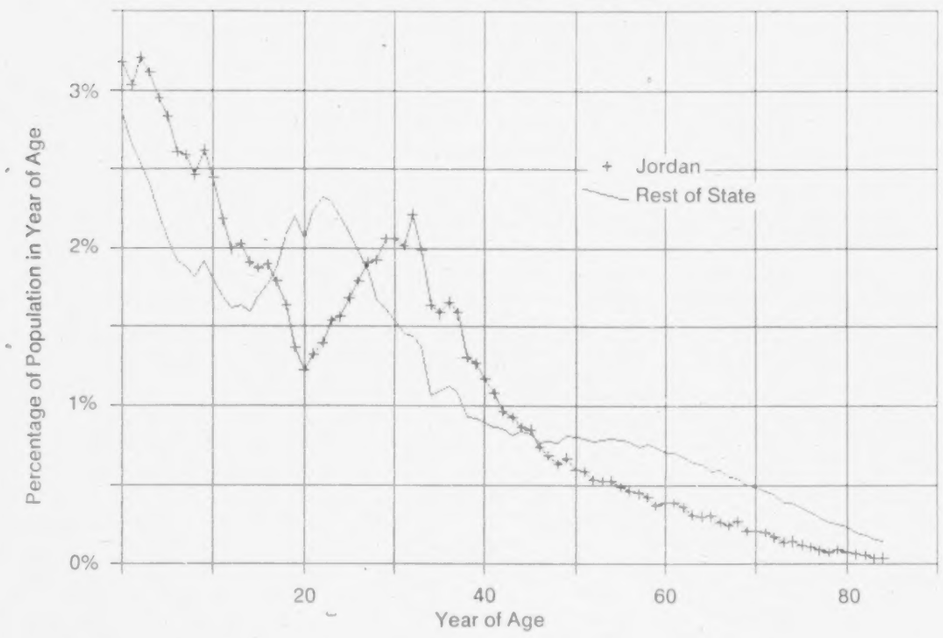
When projecting populations for small areas it is clearly important to recognize the particular age composition of the area's population and, especially for school enrollments, to specify closely the timing of migration.

A School District Specific Program to Project Population

The recognition that the future could well hold even larger changes in building and staffing requirements than those that had been experienced over the 1970's prompted the Jordan Board of Education to contract with the Utah firm of A/P Associates for a close analysis of the likely patterns and magnitudes of growth. A/P Associates in turn subcontracted with the Bureau of Economic and Business Research of the University of Utah for specific demographic projection components of the study.[3]

2. The secondary peak in the distribution for the population of the rest of the state that is about 10 years younger in age is not particularly influenced by migration but just reflects the first wave of births that occurred after the Second World War -- the so-called "baby boom."

Chart 2
Distribution of Population by Age: 1980
Jordan School District and Rest of Utah



Just the task of generating the starting point estimates--1980 Census populations by sex by single year of age for each of the 219 projection units--would simply not have been feasible even as recently as ten years ago. That starting point task involved distributing the detailed census tract populations over the square mile projection units. Census tracts are the generally irregularly shaped, geographical units that are the minimum area for which population counts by single year of age are available. Still, as the Jordan District involves only 28 tracts (parts or whole tracts), there could be considerable estimation error in allocating these populations to 219 projection units. However, these errors were closely controlled by matching the population of school ages against the detailed data base of this school district which permitted the assignment, by single year of age by sex, of each student enrolled as of April, 1980 to individual projection units.

3. The population projections described in this review are but a portion of the larger project with, in particular, the geographical specification of the population futures being controlled by the major study of land use conversion potential carried out by Eugene Carr and Gary Jones of A/P Associates. A Jordan School District team headed by Dr. C. Devon Sanderson, Administrator of Planning, Evaluation, Technology and Student Services, closely coordinated the project and integrated it into the district's planning process.

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The total populations in the school ages over all the tracts were distributed over the 219 projection units just as the enrolled students were known to be located. The older-than-school ages in a given tract were then allocated over projection areas in the same proportions as the tract's school-aged population had

been distributed. Special attention was given to the population five years old and younger by distributing them in correspondence to the imputed distribution of females of parenting ages.

Once the assumptions on fertility and survival rates were formulated and migration factors arrived at, the enormous computational effort was largely a mechanical task carried out on a modern "mainframe" computer. While the production of the necessary computer programs was itself a major task, it is expected that the substantial investment will be repaid many times over as the Jordan School District utilizes the now existing software in its ongoing planning process. A major design commitment was exactly that of providing for routine updating and revision of the projection series as each new year adds to the enrollment experience, and as market conditions for land and housing change from what earlier had been expected. Still, the fundamental design consideration was that of controlling the mechanical calculations with an analytical foundation based on the detailed study of current land use and land use conversion potential performed for the Jordan School District by A/P Associates.

Projections for Metropolitan Utah

The controlling population projection for these specific results is the set of demographic and economic projections for the whole of the Wasatch Front Multi-County District (MCD) generated in August, 1984 by the Office of Planning and Budget of the State of Utah. That set of projections was generated from provisional estimates for 1983 and had yielded a projection for July, 1985 of 1,053,675. (This figure happens to be slightly higher than the estimate of a 1985 midyear population of 1,050,750 for this area recently released by the Utah Population Estimates Committee.)

The regional projection for 1985 implied a population growth rate of 2.2 percent per year from the 1980 census count of 941,172 which was then expected to pick up to a rate of 3.1 percent per year for the 1985 to 1990 interval. More recent revisions to the regional projections have lowered that rate of expansion, an adjustment which now seems to be very plausible. However, given the range of reasons for uncertainty in regional projections, and the high plausibility for more easily available mortgage money quickening the housing market (even in a less rapidly growing regional economy), the work in revising the Jordan projections to be consistent with a slower regional growth assumption did not promise sufficient improvements as to justify the extra expense.

Jordan District's 1985 Starting Point and High Fertility Rates

The process of change in the Jordan District between 1980 and 1985 has already been noted to be one of aging with negligible net in-migration for the district as a whole. This is in contrast to the entire region which has shown some tendency toward net out-migration in recent years. But, at the detailed level of square-mile by square-mile units, the school enrollment data indicated some net out-migration in some older sections and a few sections where in-migration since 1980 had certainly occurred.

Section-by-section adjustments were made to the aged and survived populations in a calibration program to establish 1985 as a projection starting point. This detailed examination of the data then led to a major change in the projection assumptions from what otherwise would have been used. Specifically, aging and surviving the Jordan District population with currently used fertility rate assumptions for the Wasatch Front region seriously understates the number of 5 year olds just enrolling in the district's schools.

Examination of completed cohort fertility data from the 1980 Census (specifically, imputing completed cohort fertility rates to the remainder of Salt Lake County from the published data for the County and for the Cities of Murray and Salt Lake City) strongly suggests fertility rates for the Jordan District well above those for the area as a whole. The fertility rate assumptions thus used for the district follow an average of Wasatch Front and Central Utah age relatives but are adjusted to a steady-state completed cohort fertility of approximately 3.7 live births per surviving female 45 to 49 years of age. This assumption is slightly below the imputed rate of 3.9 from the 1980 Census, but still is relatively high given the recognized recent declines in Utah fertility rates.

There are two aspects to the acceptability of a high fertility rate assumption. First, it is plausible that if there are neighborhoods of relatively large families then the Jordan School District will be one of them. Second, while the resulting projections may be construed as being the appropriate planning assumption for the plausible exposure to elementary enrollments in the near future, the more critical planning parameters on high school enrollments need not be considered "locked-up" until more birth experience has unfolded with time.

The composition of increments to the population resulting from net in-migration into the district was calculated to be the population of "school related households" (persons under 60 years of age) distributed in future years as the projected Wasatch Front population less the population projected then to be in the Jordan District. This approach may tend to understate temporary concentrations of new school age children to be expected in sections with concentrations of "starter" homes but this error will tend to be offset by the possibly too-high fertility rate used. Clearly there is room for further improvement in this projection process but extending the degree of complication to the incorporation of income and household age considerations would result in rapid escalations in complexity, data requirements, and costs.

The amount of in-migrating population added to the Jordan District population, year-by-year, was produced for a "baseline" scenario by extending in time the 1970 to 1980 proportion of the Wasatch Front's increase in population occurring in the combined Jordan and Granite School Districts with a shifting share of this increment assigned to the Jordan District on the basis of the A/P Associates study of housing expansion potential. The broadly sketched results of these assumptions are presented in Table 4.

Table 4

Population of the Jordan School District
by Broad Age Groups

Estimated for 1980 and 1985
with
"Baseline" Projections for 1990 and 1995

Age	1980	1985	1990	1995
0-4	26,225	27,787	31,385	39,419
5-18	52,311	66,100	79,242	93,055
19-44	68,006	76,834	92,315	111,380
45-64	17,457	22,892	34,832	51,233
65+	5,349	6,839	8,781	11,948
All Ages	169,348	200,452	246,555	307,035

Source: November, 1985 projections by the Bureau of Economic and Business Research for A/P Associates and the Jordan School District.

The scenario presented in Table 4 combines a very plausible future of decreasing growth rates in the Wasatch Front with a further shift of expansion into the Jordan District. More recent work at the Bureau of Economic and Business Research supports the already noted contemporary concern for the 1984 Wasatch Front projections but even considering an overall slowdown in that series produces no significant alteration in the Jordan projection out to 1995.

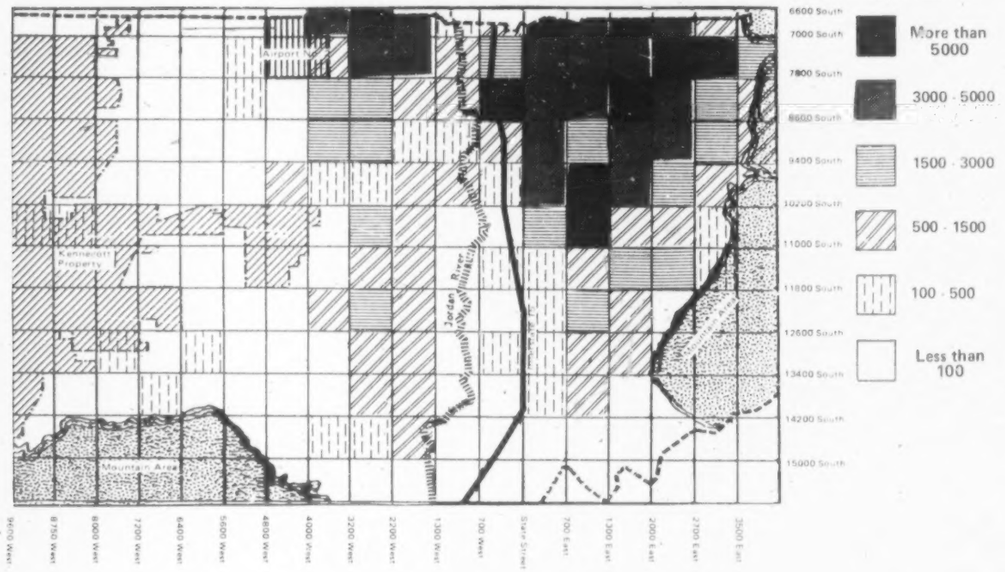
The Jordan District's population growth in the years following 1995 is necessarily more problematical. Which of the possible patterns will develop when we look out more than 10 years in the future is not only uncertain from this vantage point but will be decisively influenced by decisions that are to be made over the next few years in such areas as transportation system development -- to name but one. But, in both the near term scenario sketched here and in longer term scenarios provided to the Jordan School District, the expansion in population and households falls significantly below the potential for conversion of land to residential housing use.

Patterns of Change in Land Use

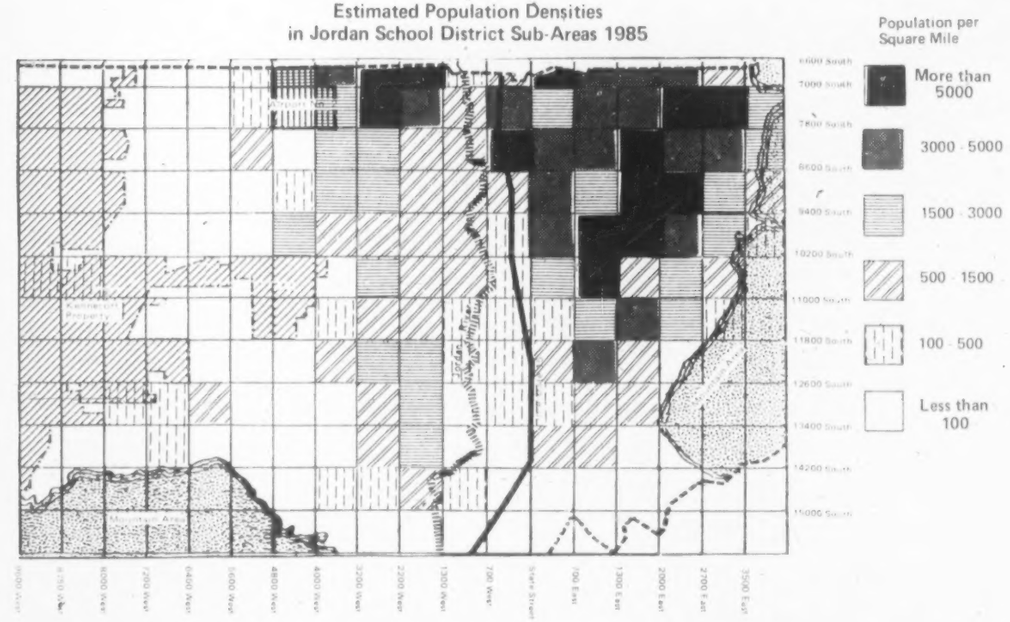
The projections allocate, year-by-year, the net in-moving population to sections on the basis of a section's proportion of the Jordan District's residential development potential for the given development period. The land use analysis was structured around four periods of interest. These periods correspond to imminency of development in terms of feasibility in 0 to 2 years, 3 to 5 years, 6 to 10 years, or 11 or more years off in the future. It is most significant that in each of these periods the expansion projected in numbers of houses fell short of the identified potential for absorption.

In this projection process a simple time path of development was followed where the land conversion potential for a period was exhausted before the allocations were shifted to the next period's potential. Hence, a high degree of accuracy cannot be imputed to either the specific timing nor the particular, section-by-section magnitudes that were projected. Still, the patterns of change sketched by the maps of population density as estimated for 1980 and 1985 and projected for 1990 and 1995 are highly reasonable pictures of what the future can look like for this area. Detailed, year-by-year population and household numbers generated in this project have been reported to the Jordan School District and are also available at reproduction cost from the Bureau of Economic and Business Research. Importantly, the maps presented in this article (on pages 8 and 9) should be understood to indicate only generally the remarkable scope and depth of the analytical capability now operational in the Jordan School District.

Map 1
Estimated Population Densities in Jordan School District Sub-Areas 1980

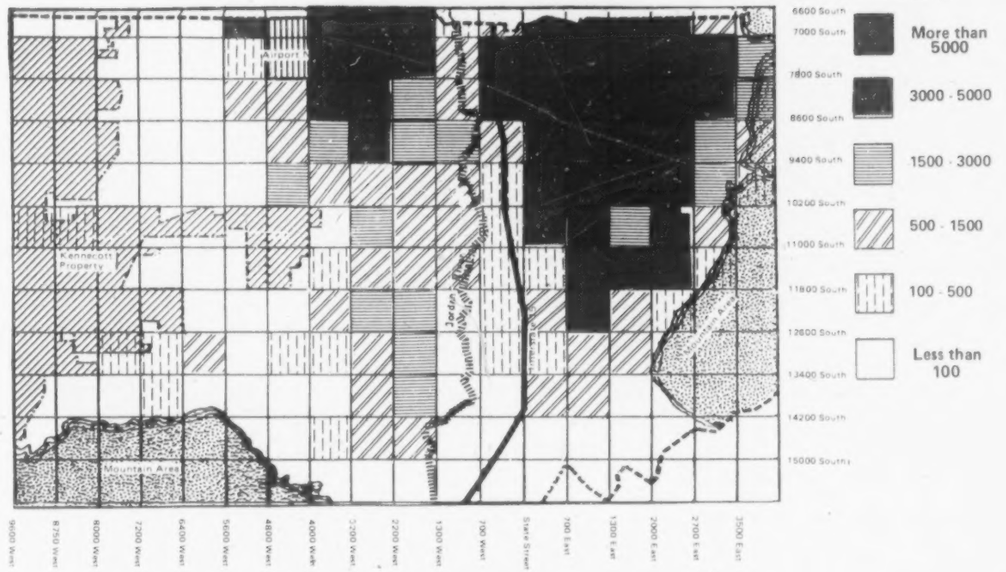


Map 2
Estimated Population Densities in Jordan School District Sub-Areas 1985

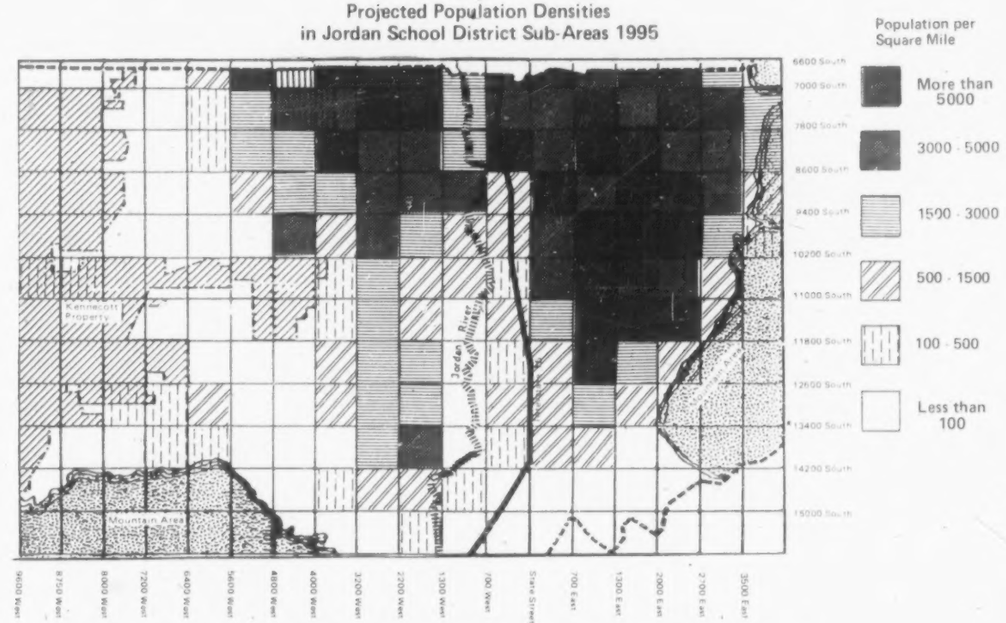


Source: Calculated by the Bureau of Economic and Business Research from projections reported to A/P Associates and the Jordan School District in November, 1985. Plotted on Map of Major Features developed by A/P Associates.

Map 3
Projected Population Densities in Jordan School District Sub-Areas 1990



Map 4
Projected Population Densities in Jordan School District Sub-Areas 1995



Source: Calculated by the Bureau of Economic and Business Research from projections reported to A/P Associates and the Jordan School District in November, 1985. Plotted on Map of Major Features developed by A/P Associates.

Utah Business Statistics

UTAH DATA	Apr. 1985	Apr.1986	% Change From Year Ago	12 Month Average This Year	12 Month Average Last Year	12 Month Average % Change
Total Personal Income (seasonally adjusted) (mil. of dol.) (qtly.)	16,976	NA	NA	15,756.1	16,435.7	-4.1%
New Corporations (no.)	456	512	12.3%	452.8	461.3	-1.8%
New Car, Truck and Motorhome Sales (no.)	6,686	NA	NA	NA	6,494.2	NA
Agriculture						
Average Prices Recorded by Farmers (dol.)						
Beef Steers and Heifers (cwt) (thous.)	56.70	52.1	-8.1%	54.4	59.9	-9.2%
Lambs (cwt)	59.50	64	7.6%	63.7	59.1	7.8%
Milk Wholesale (cwt)	12.50	11.6	-7.2%	11.7	13.0	-9.7%
Alfalfa Hay, Baled (per ton)	75.00	72.7	-3.1%	71.6	76.3	-6.2%
Cattle Slaughtered (live weight) (thous. of lbs.)	32,031	38,026	18.7%	34,420.8	30,924.9	11.3%
Construction						
Total Construction (thous. of dol.) [1]	171,000	169,459	-0.9%	132,004.4	126,216.7	4.6%
Residential	65,600	63,323	-3.5%	59,861.2	62,991.7	-5.0%
Nonresidential	37,100	59,639	60.8%	44,325.4	36,633.3	21.0%
Public Works and Utilities	68,300	46,497	-31.9%	27,817.8	26,541.7	4.8%
Total Permit Construction (thous. of dol.)[2]	144,364.8	130,083	-9.9%	120,904.3	126,120.6	-4.1%
Residential	71,234.7	66,173	-7.1%	59,971.8	63,915.2	-6.2%
Nonresidential	53,866.2	43,983	-18.3%	46,112.4	48,061.2	-4.1%
Additions, Alterations and Repairs	19,263.9	19,928	3.4%	14,320.1	14,144.3	1.2%
New Dwelling Units (no.)	1,555	1,324	-14.9%	1,276.5	1,532.3	-16.7%
Employment						
Civilian Labor Force (thous.)	730.9	739.0	1.1%	750.7	732.2	2.5%
Total Employed Persons	683.0	699.5	2.4%	707.5	684.6	3.4%
Unemployed Persons	48.0	39.4	-17.9%	43.0	47.7	-9.8%
Percent Total Labor Force	6.6	5.3	-19.7%	5.7	6.5	-12.2%
Employees on Nonagricultural Payrolls (thous. of jobs)	620.4	634.3	2.2%	629.8	611.2	3.0%
Manufacturing	95.7	92.3	-3.6%	94.6	95.4	-0.8%
Mining	10.0	8.6	-14.0%	9.1	11.7	-22.7%
Contract Construction	33.8	32.4	-4.1%	35.7	36.2	-1.5%
Transportation, Communication and Utilities	36.5	37	1.4%	36.9	36.5	1.3%
Wholesale Trade	35.7	35.5	-0.6%	35.8	35.2	1.6%
Retail Trade	109.8	114.2	4.0%	113.9	108.6	4.8%
Finance, Insurance and Real Estate	30.8	32.7	6.2%	31.7	30.3	4.5%
Services[3]	129.8	137.4	5.9%	133.5	124.6	7.2%
Federal Government	39.3	40.9	4.1%	39.8	37.9	4.9%
State Government[4]	36.6	38.8	6.0%	36.4	35.3	3.1%
Local Government[4]	62.5	64.5	3.2%	62.6	59.5	5.2%
Average Weekly Hours						
Manufacturing	40.1	40.0	-0.2%	40.4	39.8	1.5%
Mining	43.9	42.5	-3.2%	44.5	43.7	1.8%
Contract Construction	38.6	33.6	-13.0%	37.1	38.4	-3.3%
Wholesale Trade	35.6	37.3	4.8%	35.4	36.6	-3.3%
Retail Trade	28.0	27.3	-2.5%	28.3	28.8	-2.0%
Amount of Unemployment Compensation (thous. of dol.)	8,184.3	9,192.2	12.3%	7,468.9	6,378.0	17.1%
Finance						
Savings, Savings and Loan Association (mil. of dol.)	2,327.9	2,362.3	1.5%	2,350.9	2,202.8	6.7%
Tax Collections by the State of Utah (thous. of dol.)						
Total Tax Collections	78,992.5	84,147.3	6.5%	126,001.8	120,360.6	4.7%
Sales and Use Tax	9,328.7	11,115.5	19.2%	45,320.1	43,738.4	3.6%
Motor Fuel Tax	1,753.2	3,605.0	105.6%	7,775.4	6,848.8	13.5%
Individual Income Tax	28,696.8	29,980.8	4.5%	38,013.7	35,911.0	5.9%
Corporation Franchise Tax	26,530.8	26,062.5	-1.8%	5,728.9	4,624.4	23.9%
Production						
Net Electric Power Utilized (mil. of kwh)	1,009.7	NA	NA	NA	1,118.9	NA
Crude Oil to Refineries (thous. of bbls.)	4,214.4	3,258.0	-22.7%	3,781.3	4,234.8	-10.7%
Crude Oil (thous. of bbls.)	3,185.6	3,390.1	6.4%	3,497.2	3,261.0	7.2%
Natural Gas (mil. of cu. ft.)	15,202.2	19,287.7	26.9%	18,629.3	15,402.6	20.9%
Coal (thous. short tons)	743	1,091.0	46.8%	1,051.7	1,004.8	4.7%
Tourism/Travel						
Air Passengers (total no. on and off) (S.L. Int'l Airport)	691,809	811,969	17.4%	777,855.9	660,416.3	17.8%
Highway Traffic Count Across State Lines	31,956	32,269	1.0%	35,057.6	33,808.0	3.7%
Transient Room Taxes (thous. of dol.)	5.7	103.7	1719.3%	408.8	394.9	3.5%
Visits, State, Nat'l. Parks, Monuments (thous.)	761.1	786.6	3.4%	1,011.3	930.8	8.6%
Utilities						
Telephone Lines in Service (Mt. Bell) (Residential)	459,769	470,964	2.4%	465,389.9	455,133.5	2.3%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	165,420	167,216	1.1%	166,252.0	164,626.9	1.0%
Electric Customers (Residential)	433,341	NA	NA	NA	429,841.6	NA
Electric Customers (Commercial)	42,364	NA	NA	NA	41,935.2	NA
Natural Gas Customers (Residential & Commercial)	426,943	436,532	2.2%	426,978.1	415,793.2	2.7%
Natural Gas Customers (Industrial)	543	568	4.6%	570.1	529.0	7.8%

Utah Business Statistics

UTAH DATA	Apr. 1985	Apr.1986	% Change From Year Ago	12 Month Average This Year	12 Month Average Last Year	12 Month Average % Change
Davis County [fo]						
Non-Ag. Employment (thous.)	50.1	51.8	3.4%	51.8	49.6	4.3%
Unemployment Rate	4.3	3.4	-20.9%	3.8	4.4	-13.2%
Auth. Permit Construction (thous. of dol.)	12,699.1	9,555.9	-24.8%	14,517.8	11,425.1	27.1%
New Dwelling Units (no.)	139	86	-38.1%	193.9	174.2	11.3%
Postal Receipts (thous. of dol.)	320.1	348.8	9.0%	319.1	335.2	-4.8%
Electric Customers (Residential)	29,617	NA	NA	NA	32,035.9	NA
Electric Customers (Commercial)	2,863	NA	NA	NA	2,401.5	NA
Natural Gas Customers (Residential)	44,263	46,142	4.2%	44,868.3	42,927.3	4.5%
Natural Gas Customers (Industrial)	49	50	2.0%	50.3	46.1	9.2%
Telephone Lines in Service (Mt. Bell)(Residential)	39,006	52,562	34.8%	43,954.5	38,367.4	27.6%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	7,433	10,032	35.0%	9,418.9	7,189.1	31.0%
Salt Lake County						
Non-Ag. Employment (thous.) [fo]	322.5	332.7	3.2%	327.9	318.5	3.0%
Unemployment Rate	6.0	5.1	-15.0%	5.7	6.2	-7.9%
Auth. Permit Construction (thous. of dol.)	72,651.6	86,623.7	19.2%	63,002.5	64,771.6	-2.7%
New Dwelling Units (no.)	914	925	1.2%	615.4	889.9	-30.8%
Postal Receipts (thous. of dol.)	7,142.6	7,107.7	-0.5%	7,293.1	6,694.0	9.0%
Electric Customers (Residential)	211,402	NA	NA	NA	217,590.9	NA
Electric Customers (Commercial)	17,860	NA	NA	NA	18,133.3	NA
Natural Gas Cust (Residential)	207,174	212,906	2.8%	207,744.8	201,089.6	3.3%
Natural Gas Cust (Industrial)	251	266	6.0%	262.6	240.7	9.1%
Telephone Lines i Bell)(Residential)	215,737	221,468	2.7%	218,870.9	213,439.5	2.5%
Telephone Lines in Bell)(Nonresidential)	108,484	107,144	-1.2%	107,376.4	108,327.4	-0.9%
Utah County						
Non-Ag. Employment (thous.) [fo]	70.1	72.4	3.2%	71.6	69.5	3.0%
Unemployment Rate	7.7	6.7	-12.5%	7.2	7.0	2.7%
Auth. Permit Construction (thous. of dol.)	14,014.6	7,469.7	-46.7%	9,960.3	14,197.1	-29.8%
New Dwelling Units (no.)	218	60	-72.5%	81.9	106.3	-22.9%
Postal Receipts (thous. of dol.)	393.4	439.7	11.8%	418.6	414.7	1.0%
Electric Customers (Residential)	48,227	NA	NA	NA	47,495.8	NA
Electric Customers (Commercial)	5,249	NA	NA	NA	5,576.5	NA
Natural Gas Customers (Residential)	59,934	62,234	3.8%	60,474.3	57,940.6	4.4%
Natural Gas Customers (Industrial)	64	71	10.9%	70.3	67.0	4.9%
Telephone Lines in Service (Mt. Bell)(Residential)	60,543	62,420	3.1%	61,200.0	58,716.5	4.2%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	14,561	15,677	7.7%	15,254.5	14,566.4	4.7%
Weber County						
Non-Ag. Employment (thous.) [fo]	56.1	53.2	-5.2%	57.6	54.8	5.1%
Unemployment Rate	4.8	4.9	2.1%	4.9	6.0	-18.3%
Auth. Permit Construction (thous. of dol.)	6,448.2	10,167.8	57.7%	14,443.1	11,611.1	24.4%
New Dwelling Units (no.)	84	73	-13.1%	140.8	111.2	26.7%
Postal Receipts (thous. of dol.)	277.4	283.9	2.3%	284.3	273.2	4.1%
Electric Customers (Residential)	50,564	NA	NA	NA	50,398.8	NA
Electric Customers (Commercial)	4,604	NA	NA	NA	4,911.3	NA
Natural Gas Customers (Residential)	47,474	49,003	3.2%	47,850.9	45,558.7	5.0%
Natural Gas Customers (Industrial)	93	98	5.4%	97.2	87.2	11.5%
Telephone Lines in Service (Mt. Bell)(Residential)	41,991	43,472	3.5%	42,544.1	41,444.1	2.7%
Telephone Lines in Service (Mt. Bell)(Nonresidential)	10,139	10,634	4.9%	10,453.1	10,211.5	2.4%

NA - Not available fo - Forecast

Sources:
Personal Income: Bureau of Economic Analysis, U.S. Department of Commerce
New Corporations: Utah Secretary of State
New Cars and Truck Sales: Utah State Tax Commission, Economic and Statistical Unit
Agriculture: U.S. Department of Agriculture, Agriculture, Utah; Utah Crop and Livestock Reporting Service
Construction Data: F.W. Dodge and Utah Construction Report
Employment Data: Utah Department of Employment Security
Savings, Savings and Loan Associations: Utah Savings and Loan Institutions
Tax Collections: Utah State Tax Commission
Net Electric Power Utilized: Cooperating Utah Power Companies
Crude Oil: Area oil refineries
Natural Gas: Utah Division of Oil, Gas and Mining
Coal: Department of Energy
Air Passengers: Salt Lake City International Airport, Statistics Service
Highway Traffic Count: Utah Department of Transportation, Travel Analysis Unit
Visits to State and National Parks and Monuments: U.S. Forest Service, Utah State Parks and Recreation Department
Utilities Data: Cooperating Utah utility companies
Postal Receipts: Postmasters in Davis, Salt Lake, Utah, and Weber Counties

Footnotes:
1 - Obtained from F.W. Dodge Statistics
2 - Obtained from Utah Construction Report
3 - Includes services by nonprofit and religious institutions
4 - Includes public schools and colleges

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NATIONAL DATA

	Apr. 1985	Apr 1986	% Change From Year Ago	12 Month Average This Year	12 Month Average Last Year	12 Month Average % Change
U.S. Gross National Product (seasonally adjusted) (bil. $) (qtly.)	3,960.6	4182.3[P]	5.6%	4,065.5[r]	3,851.9	5.5%
Total Personal Income (seasonally adjusted) (bil. of dol.)	3,288.6	3485.1	6.0%	3,357.8[r]	3,181.7	5.5%
Industrial Production Indexes (seasonally adjusted) (1977=100)	124.1	125.2[P]	0.9%	125.1	123.2	1.5%
Total Non-Farm Bus. Expend. on New Plants & Equip. (bil.) (qtly.)	387.8	387.4[a]	-0.1%	385.5	365.2	5.6%
Index of Leading Indicators (1967=100)	166.3	178.3	7.2%	171.6	165.9	3.4%
Price Indexes						
Consumer Price Indexes (not seasonally adjusted) (1967=100)						
CPI-U (All Urban Consumers) All Items	320.1	325.3	1.6%	325.1	314.8	3.3%
CPI-U (All Urban Consumers) Food & Beverages	301.6	398.5	32.1%	311.8	297.5	4.8%
CPI-U (All Urban Consumers) Housing	345.9	358.0	3.5%	354.2	340.8	3.9%
CPI-U (All Urban Consumers) Transportation	320.0	303.3	-5.2%	319.1	314.8	1.4%
CPI-U (All Urban Consumers) Medical Care	398.0	428.0	7.5%	412.7	386.8	6.7%
CPI-U (All Urban Consumers) Energy	424.4	361.8	-14.8%	419.0	422.8	-0.9%
Producer Price Index (not seasonally adjusted) (1967=100)						
Producer Price Index, All Finished Goods	293.1	286.9	-2.1%	293.2	291.8	0.5%
GNP Price Deflator (1982=100) (qtly.)	111.3	114.1[P]	2.5%	112.8	109.4	3.1%
Employment (seasonally adjusted)						
Civilian Labor Force (mil.)	106.9	117.2	9.6%	110.6	106.0	4.4%
Total Employed Persons (mil.)	115.3	108.9	-5.6%	113.4	114.3	-0.8%
Unemployment Rate	7.3	7.1	-2.7%	7.1	16.2	-56.0%
Construction						
Total Construction (mil. of dol.)	14,917.1	22,437.5	12.7%	18,742.2	17,866.4	4.9%
Residential	9,443.5	11,791.4	24.9%	8,927.1	8,351.7	6.9%
Nonresidential	6,676.2	6,634.2	-0.6%	6,457.0	6,352.2	1.7%
Non-Building	3,797.4	4,011.9	5.6%	3,358.1	3,162.5	6.2%
New Dwelling Units (no.)	158,617	178,706	12.7%	142,678.9	142,017.6	0.5%
Interest Rates						
Short Term (3-month Treasury bill rate)	8.00	6.06	-24.3%	7.0	9.2	-23.8%
Long Term (30-year Treasury bond yields)	11.47	7.59	-33.5%	9.8	11.9	-17.6%
Prime Rates Charged by Banks on Short-term Business Loans (ave.)	10.50	8.83	-15.9%	9.5	11.8	-19.4%
Mortgage Rates (new homes)	11.55	9.87	-14.5%	10.6	11.8	-10.4%

[P] Preliminary [r] Revised na = Not available [a] Anticipated

Sources: Business Conditions Digest, U.S. Department of Commerce: U.S. Gross National Product, Total National Personal Income, Industrial Production Indexes, Total Business Expenditures for New Plant and Equipment, Index of Leading Indicators, GNP Price Deflator, National Employment Data, Interest Rates

F. W. Dodge Report, McGraw-Hill: National Construction Data

Survey of Current Business, U.S. Department of Commerce: New Home Mortage Rates

Utah Labor Market Report, Utah Department of Employment Security: Consumer Price Indexes, Producer Price Indexes

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